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Abstract

Microbial precipitation of heavy metals by sulfate reducing bacteria (SRB) through sulfate reduction as corresponding sulfides is being seen as a promising technique for the treatment of metal contaminated wastewater. SRB based bioprocesses are more attractive compared with chemical process owing to their low cost, very high removal and recovery of metals even at low initial concentration from wastewater. ~~Attached growth bioreactors are regarded as the most suitable systems for treating metal laden wastewater *via* sulfate reduction.~~ Both passive and active biological treatment systems are regarded as the most promising and potential treatment systems for a wide variety of metallic wastewater. These bioreactor systems offer more compact design, ease of performance and efficient control ~~than suspended growth bioreactor systems~~. However, there is limited information available on sulfidogenic bioreactors in the literature for a better understanding of the treatment system involving SRB. This is particularly important for